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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,147	11/16/2005	Victor Robinson	9555.144USWO	9946

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EXAMINER

BELL, BRUCE F

ART UNIT PAPER NUMBER

1746

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/518,147	ROBINSON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Bruce F. Bell	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-11 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/17/04</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 1 is objected to because of the following informalities:

The term "fat" should be changed to "flat".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 is vague and indefinite with respect to the cathode. It is unclear as to which part is the cathode and which part is a cathode assembly. The cathode is typically the cathode plate and the hanger bar to which it is mounted is considered to make it a cathode assembly. Therefore, it is unclear to the examiner whether applicant is intending to claim just the cathode or the cathode assembly from the instant claims as set forth. Claims 2-7 are dependent on claim 1 and therefore have the same deficiencies.

### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 5, 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Assenmacher (US 6,569,300).

Assenmacher disclose a steel clad cathode for electrolytic refining of copper wherein a solid copper hanger bar and a stainless steel mother plate are attached to each other by a receiving groove in the underside of the hanger bar. The entire length of the connection is welded. The solid hanger bar includes a cladding of stainless steel wrapped over the copper bar and the upper portion of the mother plate, leaving only the ends of the copper bar exposed for electrical connection with a conventional bus bar. The lower edges of the cover are attached to the mother plate by a steel to steel weld that produces a strong and durable connection. The lateral edges of the cover are also connected to the copper bar by a conventional copper weld that completely seals the cover over the copper bar. The cover is then welded to the mother plate and sealed around the copper bar. The heat produced by the welding process, which causes the steel cladding material to expand during welding, is used to improve the tightness of the fit between the cover and the copper bar as a result of the covers shrinkage, occurring during cooling. See abstract. Figures 7, 11 and 12 disclose a weld 40 inside where the stainless steel cladding and copper hanger bar meet the stainless steel cathode plate. The cladding is shown to connect the plate and the weld fills the area between the cladding and the copper bar where the cathode plate has been inserted into the copper bar. The cladding surrounds the copper bar. Further welds are used between the cathode plate and the outside of the cladding.

Assenmacher anticipates the applicants instant invention as shown by way of the disclosure above with respect to the instant claims as presented. The weld 40 inside where the stainless steel cladding and the copper hanger bar meet is considered by the

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examiner to be the corrosion resistant material filling in the cavity. Therefore, the prior art of Assenmacher anticipates the applicants instant invention as set forth in the instant claims.

***Allowable Subject Matter***


5. Claims 8-11 are allowable over the prior art of record.
6. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach and/or suggest a method of making the cathode assembly wherein a cavity formed between a protective cladding of the hanger bar and the deposition plate is filled with a corrosion resistant material after the cladding has been overlaid on the hanger bar and connected to the deposition plate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruce F. Bell whose telephone number is 571-272-1296. The examiner can normally be reached on Monday-Friday 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BFB  
September 26, 2006

  
Bruce F. Bell  
Primary Examiner  
Art Unit 1746